

DOCUMENT RESUME

ED 430 160

CE 078 727

AUTHOR Bynner, John; Parsons, Samantha
TITLE Use It or Lose It? The Impact of Time out of Work on Literacy and Numeracy Skills.
INSTITUTION Basic Skills Agency, London (England).
ISBN ISBN-1-85990-085-2
PUB DATE 1998-11-00
NOTE 20p.
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adult Literacy; Adults; *Basic Skills; Foreign Countries; *Numeracy; *Socioeconomic Influences; *Unemployment
IDENTIFIERS National Child Development Study (Great Britain)

ABSTRACT

A British study examined whether people's literacy and numeracy skills get worse if they are out of paid employment. It was based on a sample of adults aged 37, who are part of the major cohort study, the National Child Development Study. Only those persons who left school at age 16 were included. Some of the findings were as follows: (1) when men were out of work, their numeracy skills got steadily worse, with those who had poor skills to start with seeing their skills decline sooner and more; (2) time out of paid employment was also linked to a decline in numeracy skills in women, but to a lesser degree; (3) reading skills were more resilient for both men and women--unemployed women had a small decline in skills whereas men's skills declined only if they had poor skills to start with; (4) other influences, such as socioeconomic status, had great influence on whether skills declined during unemployment, but at least small skill losses were suffered at all levels. The study concluded that since reading is used all the time, being out of work has less impact. In addition, since some numeracy skills are used in work but not in everyday life, they are more likely to be lost when people are out of work. Finally, those who had reached a skills threshold were less likely to lose their skills and training in work appeared to protect against skills loss. The findings underline the importance of opportunities for unemployed people to improve their basic skills. (KC)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED 430 160

The impact of
time out of
work on
literacy and
numeracy
skills

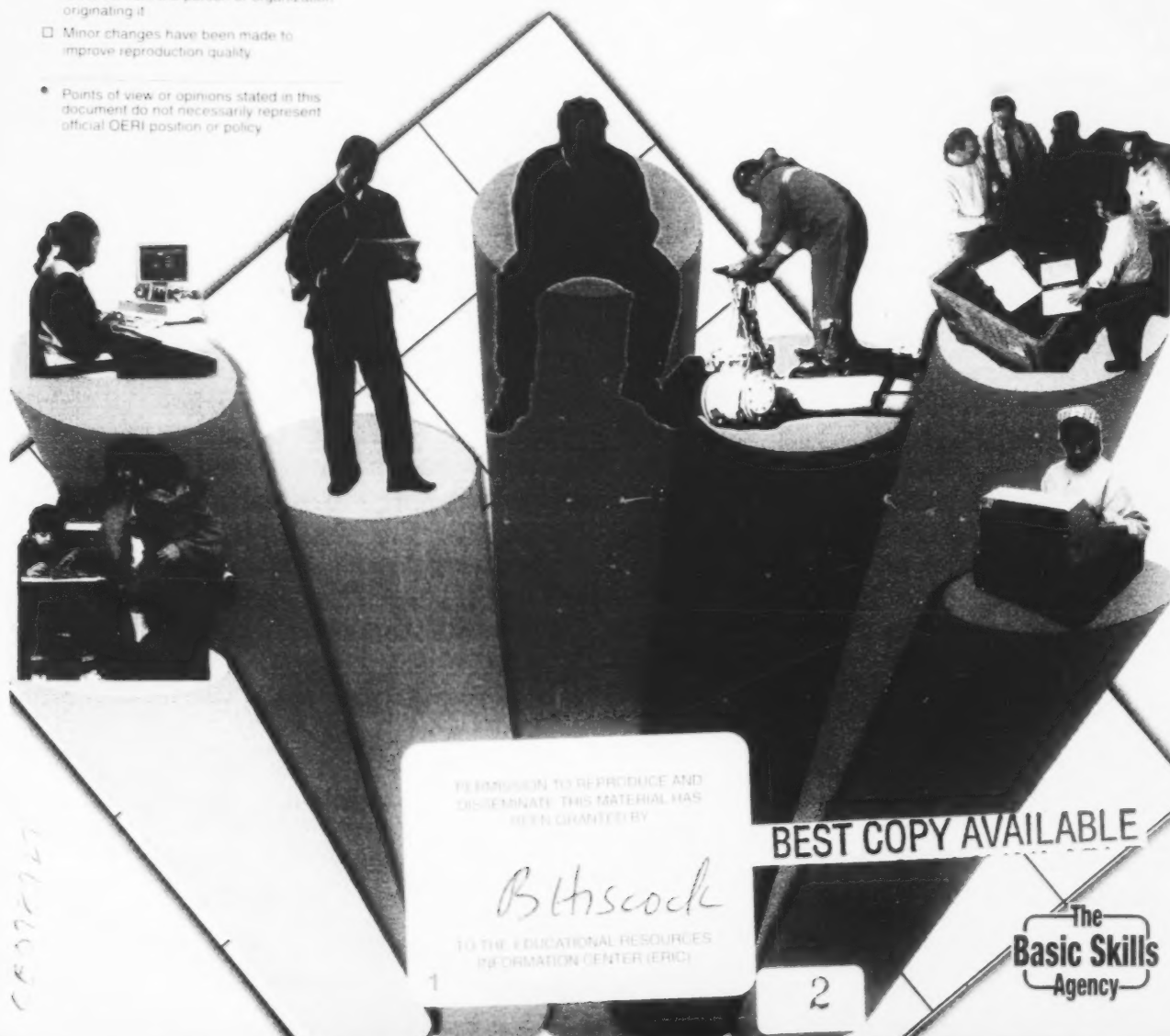
Use it or Lose it?

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as
received from the person or organization
originating it
- ☐ Minor changes have been made to
improve reproduction quality

- Points of view or opinions stated in this
document do not necessarily represent
official OERI position or policy

Professor John Bynner and Samantha Parsons



PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

Bethscock

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

The
Basic Skills
Agency

1

2

©The Basic Skills Agency, Commonwealth House,
1-19 New Oxford Street, London, WC1A 1NU.

All rights reserved. No part of this publication may be photocopied,
recorded or otherwise reproduced, stored in a retrieval system or transmitted
in any form or by any electronic means without the
prior permission of the copyright owner.
Published November 1998

ISBN 1 85990 085 2

Design: Studio 21

Use It or Lose It?

**The impact of time out of work
on literacy and numeracy skills**

*Professor John Bynner and Samantha Parsons,
Centre for Longitudinal Studies, Institute of Education*



Summary

This study examines whether people's literacy and numeracy skills get worse if they are out of paid employment. It is based on a sample of adults aged 37, who are part of the major cohort study, the National Child Development Study (NCDS).

Main findings

Numeracy – men

- when men were out of work, their numeracy skills got steadily worse
- those who had poor skills to start with began to lose them sooner and their skills declined the most

Numeracy – women

- time out of paid employment was linked to decline in skills, but the effect was smaller than for men

Reading – men

- overall, reading skills were more resilient
- they did decline, if people had poor skills to start with

Reading – women

- there was a small decline in skills

Interpretation

- reading is used all the time, so being out of work has less impact
- some numeracy skills are used at work, not in everyday life, and this may explain why they are lost when people are out of work
- women spent less time in the labour market. Using reading and numeracy in more contexts may have preserved skills.

Conclusions

- those who had reached a skills threshold were less likely to lose their skills
- training in work appeared to protect against skills loss
- the findings underline the importance of opportunities for unemployed people to improve their basic skills.

BEST COPY AVAILABLE

Use It or Lose It?

Introduction

THE relationship of basic skills problems to poor labour market experience is well established. Men with poor literacy or numeracy have problems in gaining entry to secure employment and in retaining it. Women with poor basic skills have similar problems with labour market entry and are the first to exit from employment. In a recent study of adult basic skills problems, men and women at age 37 with the worst literacy or numeracy were the most likely to be out of employment at the time of interview. The men were unemployed and the women were 'at home'. Although most of the two thirds of the whole sample who left school at 16 in 1974 managed to get jobs, when the recession of the early 1980s took hold, those with poor basic skills were the first to lose them. At every age between 22 and 37, men and women with literacy and numeracy difficulties were the most likely to be without jobs.

Out of the 21 years available in the labour market to people who left school at 16:

- men assessed with very low literacy or numeracy at 37 had experienced, on average, *3½ years less full-time employment than men with good literacy or numeracy at 37:*
 - 15.4 years to 18.9 years for literacy,
 - 15.5 years to 19.0 years for numeracy.
- Women with very low skills had spent *4 years less in full-time employment than women with good skills:*
 - 7.5 years to 11.4 years for literacy,
 - 8.4 years to 12.8 years for numeracy.

Basic skills problems appear to reduce employment opportunities. But to what extent does the reverse effect apply? Do basic skills get worse in response to poor labour market experience? More specifically, in relation to our 37 year olds, have those with poor basic skills always had a problem with them or has time spent out of the labour market added to their difficulties?

1. Bynner, J and Parsons, S. *It Doesn't Get Any Better*, Basic Skills Agency, 1997

Although we can all think of skills that we have 'lost' over the years, these are generally not basic skills. Most people do not forget how to read, to follow written instructions or to add up simple numbers, although more complex numerical skills are undoubtedly more vulnerable to 'memory loss'. Unless used and practised during adulthood, the ability to work out percentages or calculate the cubic area of a room, for example, is often relegated to 'something I could do when I was at school'. We need to find out to what extent these effects do extend to the skills on which the more complex ones are founded: the basic skills of literacy and numeracy. 'If you do not use it, do you lose it?'

Role of employment

Employment provides the opportunity to practise and develop skills. From the most menial jobs to the most exacting positions, modern jobs increasingly demand the use of basic literacy and numeracy². Given the centrality of employment to men's lives, we might expect that continued employment would have a role in preventing the deterioration of their basic skills, and, if anything, lead to their improvement. We might also expect that any deterioration that occurs – through extended unemployment for example – would be more evident for numeracy than for literacy. This is because reading is likely to be required in a variety of every day situations outside work, whereas certain kinds of numerical skills are more likely to be used, mainly, in particular types of job. For example, many men with poor basic skills find work in and around the semi-skilled 'craft' areas of the building trade, where basic maths skills are likely to be called upon. An earlier study pointed to the increasing importance of numeracy, over and above literacy, in getting and retaining employment for both men and women.³

For women, the relationship between skills and employment is more complicated, because of the periods out of the labour market having children or mixing part-time employment with child care.⁴ At 37, four fifths of the women in the basic skills survey referred to earlier had one or more children; two in five were in full-time employment and two in five worked part-time at the time of interview. The more diverse roles often demanded of women, in the child caring role for example, are likely to involve a wide range of basic literacy and numeracy skills. Household management and home-based educational support for children involve the use of reading skills and basic maths on a near daily basis. We might speculate, therefore, that for women, absence of paid employment would not have such a detrimental effect on basic skills as it might for men.

2. Atkinson, J. and Spilsbury, M. *Basic Skills and Jobs*, Adult Literacy and Basic Skills Unit (ALBSU) and Institute of Manpower Studies (IMS), 1993.

3. Bynner, J. and Parsons, S., *Does Numeracy Matter?* Basic Skills Agency, 1997.

4. Bynner, J., Morphy, L. and Parsons, S., 'Women, Employment and Skills' in Metcalf, H. (ed.) *Half our Future*, Policy Studies Institute, London, 1997.

Are literacy and numeracy skills affected by absence from the paid labour market?

To discover the effects of labour market experience on the basic skills, we use data from the same longitudinal study in which the survey referred to earlier was carried out – the National Child Development Study (NCDS). NCDS comprises a sample of over 17,000 people born in a single week in 1958 and followed up subsequently at ages 7, 11, 16, 23 and 33 when 11,407 were surveyed. At 37 a representative ten percent sample was surveyed (n=1,714) and information on family formation, employment and housing was updated. In addition the respondents completed functional literacy and numeracy tests designed by the National Foundation for Educational Research (NFER). Earlier on in their lives, a complete record of their educational progress had been built up, through tests taken at different ages. These included reading and maths tests at age 7, 11 and 16.

Results in reading and mathematics tests at 16 are strong predictors of the scores on the functional literacy and numeracy tests¹. It is therefore reasonable to see the 16 year old tests as markers of basic skills attainment at the time of leaving full-time education and entry into first employment. The school based reading and mathematics tests at 16 were different in form and content from the functional literacy and numeracy tests at 37. The reading and maths tests at 16 were designed to assess the full range of a student's competence, from very poor to very advanced. The literacy and numeracy tests at 37, however, were designed with adults possessing very weak skills in mind. The most difficult tasks in these tests were no higher than BSA Wordpower Level 3 or Numberpower Level 2.

Given this much lower 'ceiling' in the tests at age 37, direct measures of skills 'improvement' or 'loss' between age 16 and 37 were difficult to obtain. Accordingly it was not sensible to use the previous categorisation used for the 37 year test scores of 'very low', 'low', 'average', 'good' on the 16 year test scores. After some experimentation a degree of equivalence was achieved through a classification of the 16 year reading scores as 'poor' (18%) versus 'good' (82%). This compares with the equivalent categorisation for the 37 literacy scores as 'very low' (6%) plus 'low' (13%), i.e., 19% poor versus 81% ('average' or 'good'), good. As the 37 year numeracy scores were much more evenly distributed such a re-grouping was not necessary. The 16 year mathematics scores were classified as 'poor' (20%) versus 'good' (80%). This compares with the equivalent categorisation for the 37 year numeracy score of 23% 'very low' or poor versus 77% good ('low', 'average' or 'good').

¹ S. Parsons, S. and Bynner, J. *Influences on Adult Basic Skills*, Basic Skills Agency, 1998.

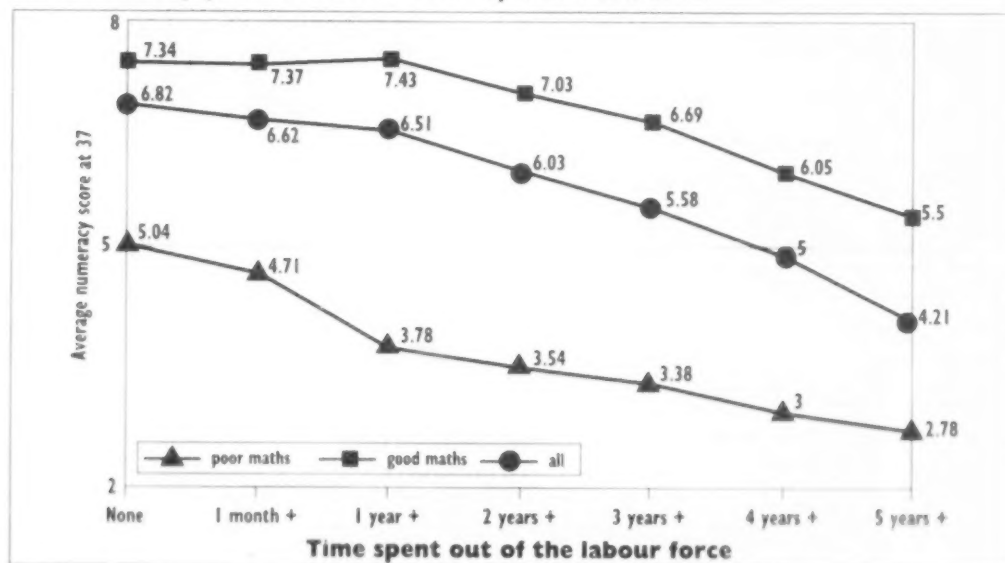
The amount of time cohort members had spent in the labour market was highly variable depending on the age at which they left school. The initial analysis was therefore restricted to those who left full-time education at 16. For them, the maximum working time available was 21 years (302 men; 293 women). To take account of the time women spend out of the labour market having and bringing up children, the sample of women was further restricted to those who had at least one child by the age of 37 (85% of the early school leavers, 245 women). Time out of the labour market was measured in months as obtained from the complete employment histories back to 16 that cohort members supplied.

If time out of paid employment in these restricted samples does have a detrimental impact on an individual's basic skills, we would expect the mean literacy and numeracy scores at age 37 to decline in accordance with time spent out of paid employment. Men and women who have amassed most time out of the labour market should have the lowest scores.⁶

Men

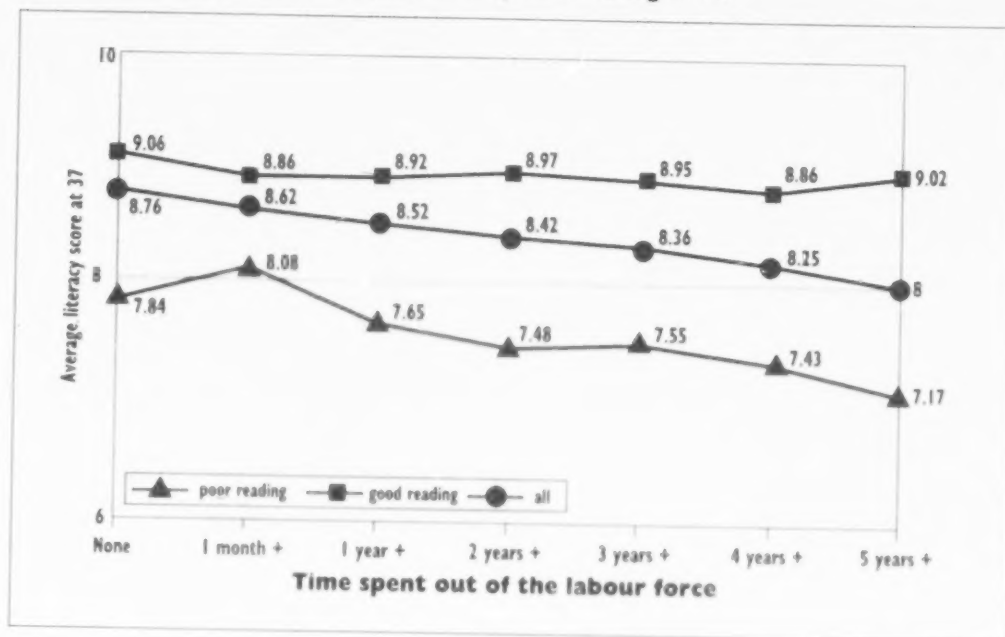
Figures 1a and 1b show how the mean numeracy and literacy scores at 37 change with the amount of time spent out of employment, for the different groups as defined at 16. Exactly in line with prediction, the more months out of paid employment the more the mean numeracy score declined, whatever the level of maths that had been reached at 16 (Figure 1a). For men overall and the group with

Figure 1a: Average numeracy score at 37 by time out of paid employment between age 16 to 37. Men who left full-time education at 16 by their maths at 16.



6. However, as relatively small numbers had spent very long periods out of paid employment (5+ years for men, 14+ years for women) we need to treat the mean scores of these groups with more caution. This needs to be borne in mind when looking at figures 1 and 2.

Figure 1b: Average literacy score at 37 by time out of paid employment between age 16 to 37. Men who left full-time education at 16 by their reading at 16.



'good' maths scores at 16, the decline in mean numeracy scores began after 1 year out of the labour market. For those who were in the 'poor' maths group at 16 the decline began immediately; with every month out of the labour market these men's mean scores declined.

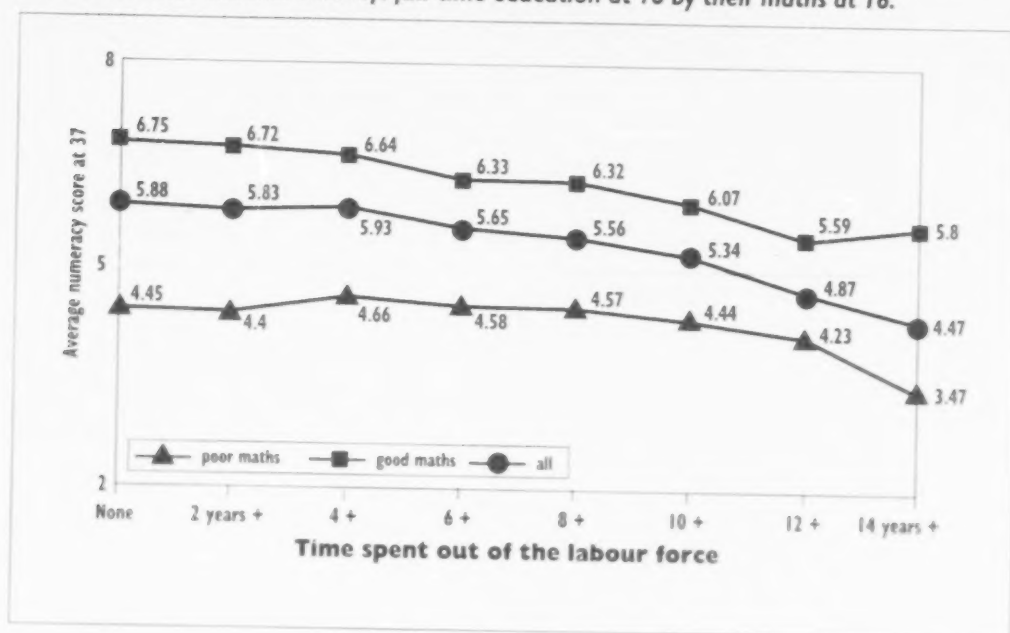
With respect to reading there was also evidence of a decline in scores with time out of the labour market, but at a much lower level and only for those who had 'poor' reading scores to start with. For those with 'good' reading at 16, the skill was retained at much the same level regardless of how much time had been spent out of the labour market.

Women

Very few women with children had not spent some time out of paid employment by the time they were 37 ($n = 29$). We therefore compare average difference scores between women who had all spent some time out of paid employment, between one month and 14 or more years. Figures 2a and 2b compare women's average numeracy and literacy scores by the different periods of time they had spent out of paid employment between ages 16 to 37.

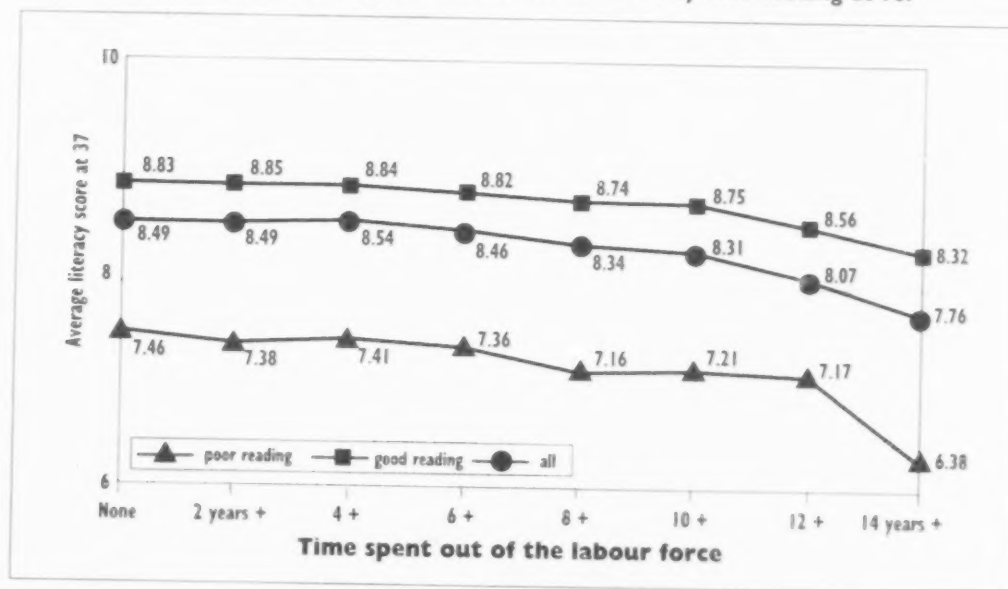
Time out of paid employment was associated with a decline in women's numeracy skills, but to smaller extent than was the case for men.

Figure 2a: Average numeracy score at 37 by time out of paid employment between age 16 to 37. Women with children who left full-time education at 16 by their maths at 16.



For women with 'good' maths at 16, a steady decline in mean scores was immediately evident. Conversely, a decline in scores was only really evident for women with poor maths at 16 once 10+ years had been spent without paid employment. It seems possible therefore that women who need and use their numeracy skills in the jobs they do, lose them to a limited extent through lack of practice when out of the labour market.

Figure 2b: Average literacy score at 37 by time out of paid employment between age 16 to 37. Women with children who left full-time education at 16 by their reading at 16.



Time out of paid employment was also associated with a decline in women's literacy skills (Figure 2b), but this time the decline was more evident for women with poor reading. A slow decline in their literacy scores emerged immediately, but mean scores of women with good reading at 16 were only affected once 6+ years had been spent outside the paid labour market.

Strength of relationship between scores at 37 and time out of paid employment

The graphs provide evidence of a relationship or *correlation* between time out of paid employment and lower scores in the basic skills assessments at 37: the longer the time out, the lower the literacy and numeracy scores. But before we can place complete confidence in this finding we need to be able to apply more rigorous tests to the data. We need to take into account the effects of maths and reading scores at 16, and also the effects of other influences. What else might explain why men and women who had spent the most time out of employment between the age of 16 and 37 achieved the lowest scores in the literacy and numeracy tests at 37? For example, age of leaving full-time education and exam success at 16 are both related to literacy and numeracy at 37, and the amount of time spent either in or out of employment.

Leaving technical details for the Appendix, multiple regression analysis allows us to say how much of the variation in the scores attained by men and women in literacy and numeracy at 37 can be explained by other factors. In other words, to what extent can we explain how one person gets a higher score than another. We can also say how strong the relationship is between each of these 'explanatory' influences and literacy and numeracy at 37, while holding constant the effect of all the other possible influences.

The other factors in this instance are individual scores in the reading or maths test at 16 and the amount of time the respondent had spent out of the paid labour market. They also embrace a number of family background circumstances and employment experiences between ages 16 and 37. We use the whole sample for this analysis, that is the cohort members who completed tests at both 16 and 37: 1286 in all.

Can time out of the labour market affect numeracy and literacy, taking maths and reading scores at 16 into account?

The initial regression analyses explored the relationships of numeracy and literacy scores at 37 with time out of paid employment, taking account of maths or reading score at 16. The analysis was carried out for men and women with 'poor' and 'good' mathematics or reading at age 16.

The earlier picture obtained from the graphs was confirmed. For men and women with poor or good maths skills at 16, the longer the time out of employment the lower the numeracy score. This effect was particularly strong for the numeracy scores of men with a poor grasp of maths at 16. In contrast, for men and women with a good understanding of maths at 16, once the maths skills score at 16 was controlled, time out of paid employment lost much of its impact on their numeracy at 37.

A similar picture was found for literacy but the effects were weaker. In fact once the 'threshold' of good reading at 16 had been obtained, skills retention did not appear to be adversely affected by time spent out of paid employment. On the other hand for men and women who were poor readers at 16, the same relationship as for numeracy was found: the more time spent out of paid employment the lower the literacy score at 37. The relationship was weaker than for the numeracy scores, substantially so in the case of men.

What else besides time out of paid employment can account for lower literacy and numeracy scores at 37?

We now bring in the family background factors and adult experiences both in the workplace and at home, which might account for the relationship between time out of employment and low numeracy and literacy scores at 37. Are people who come from well-off homes more likely to avoid the problem? Similarly are those who do well in the labour market, particularly those who get training in the jobs they do, likely to preserve or even enhance their skills? Again, does the starting point make any difference: are people who start off with good skills protected and those with poor skills more vulnerable?

Overall we can explain more of the variation in the numeracy and literacy scores at 37 when we include all these other factors, suggesting that they do have importance over and above time out of employment in determining the scores at 37. Notably, however, the key relationship of interest, i.e., between time out of the labour market and literacy and numeracy at 37, is sustained. Over and above all these other influences, the more time people spent out of employment the more their basic skills deteriorated. However, the relationship was weakened. In other words, when we take account of these other influences the damaging effect of absence from the labour market is slightly less evident.

Again the relationships remained stronger for numeracy than for literacy, for both men and women. They were strongest for men and women with a *poor* grasp of maths or reading at 16, in comparison with those with *good* skills at 16. This supports

our earlier conclusion that poor skills are more susceptible than good skills to further deterioration if they are under utilised.

We have established that time out of the labour market does have an adverse effect on literacy and numeracy throughout adult life, but what role do the other background circumstances and experiences have in relation to the problem? The fact that, when all these factors are taken into account, the overall predictability of the scores improves and the fact that the relationship between time out of employment and the literacy and numeracy scores is weakened, suggests that these other factors are having a significant impact.

A higher social class at birth for example, has a positive impact on the scores at 37 for those with poor skills at 16, particularly among women. Although this aspect of an individual's life cannot be changed, it is clear that the basic skills of those brought up in more disadvantaged circumstances are more adversely affected: middle class homes provide a degree of protection. Work related training is another good positive predictor of 37 year numeracy scores for men and women with poor maths skills at 16. It also predicts men's literacy scores if they were poor readers at 16. This suggests that such training can also offer a degree of protection against the adverse effects of time out of the labour market for people with poor basic skills, especially numeracy.

Conclusion

The maxim '*Use it or Lose It*' has a nice ring to it, but the evidence for it is typically based on impressions and suppositions rather than on hard facts. We can now state that lack of use in employment does have a negative impact on basic skills. The longer the absence from paid employment between age 16 to 37 the greater the negative impact on the numeracy scores of men. For men and women with poor skills at 16, the negative impact is felt on both numeracy and literacy scores. In contrast, the association was much weaker for both men and women with *good maths* or *good reading skills* at 16.

The impact of time out of paid employment on 37 year literacy and numeracy scores is strongest when the skills are poor at 16, which suggests that once a certain level of reading or maths has been attained at school, skills are not much weakened by absence from paid employment. A basic skill threshold needs to be reached before we can be sure that the skill is going to be retained.

The lower negative impact of time spent out of paid employment on literacy scores at 37, as opposed to numeracy scores, supports the idea that the continuous

exposure to demands for literacy outside of the workplace, serves, to a certain extent, as a buffer against skills decline.

The fact that the relationship between time out of paid employment and scores at 37 is stronger for numeracy than for literacy seems to confirm our earlier hypothesis that certain kinds of numerical skills are more likely to be used, mainly, in particular types of job. Many men leaving school with relatively poor maths skills work in the semi-skilled craft areas of the building trades. If people are unemployed and do not have an opportunity to exercise the numeracy skills demanded by this type of work, their skills appear to deteriorate through lack of use. If you don't use it you lose it.

As we also anticipated, the negative impact of time out of paid employment on the literacy scores of women leaving school with poor reading skills was apparent, but less evident than for men with poor reading skills.

The implications of these results are apparent for both sexes. Clearly the areas of the labour market in which men and women with poor basic skills seek work demand basic numeracy and literacy as part of the work itself. Lack of employment depresses what are usually poor skills to start with even further, particularly numerical skills. Education and training experiences at work appear to provide some protection. Women's literacy skills are also somewhat protected by their more diverse roles, both inside and outside the labour market. Time out of paid employment might carry fewer direct ramifications for the skills of women, but for both sexes it will reduce even more the capacity of the poorly skilled to find employment.

A major policy implication of these findings is that those out of employment need to be helped to retain their numeracy and literacy. This means ensuring that they have the numeracy and literacy support they need outside as well as inside the workplace.

'Use It or Lose It' must be replaced by *'Practice it and Keep it'* if there is to be a realistic prospect of continuing access to work.

Appendix

THE multiple correlation coefficient, R , shows the strength of the relationship between the set of 'other' influences and the adult literacy and numeracy scores. R has a range of 0 to 1. The closer to 1, the stronger the relationship between the set of influences and the adult literacy and numeracy scores. R^2 takes this further, giving the actual percentage of variation in the adult literacy and numeracy scores at 37 that has been explained by the influences. A high percentage tells us that the influences are good predictors of adult literacy and numeracy scores.

A standardised regression coefficient is also calculated for each influence. This gives the strength of the relationship between any *one* influence, i.e., time out of the paid labour market, and the literacy or numeracy score at 37, while holding constant the effect of the other influences. These range between -1 to +1. Using time out of the paid labour market as an example, the further from zero that the coefficient is, the stronger the relationship between time out of the paid labour market and the literacy or numeracy score at 37. A positive coefficient (towards +1) tells us that time out of the paid labour market has a positive impact on an individual's skills at 37, while a negative coefficient (towards -1) indicates a negative impact. In other words, the lower the literacy or numeracy score is, the higher the number of months spent out of paid employment. Evidence of a *negative* relationship between the 37 year score and time out of employment, is therefore the primary focus of interest.

Table 1a: Regression coefficients and multiple correlation coefficients for numeracy score at 37 on maths skills at 16 and time spent out of paid employment

	MEN			WOMEN		
	all	poor maths at 16	good maths at 16	all	poor maths at 16	good maths at 16
maths score at 16	.59 ¹	.28 ²	.44 ¹	.60 ¹	.32 ¹	.53 ¹
time out of paid employment	-.01	-.24 ³	.06	-.05	-.16 ³	-.03
R	.58 ¹	.38 ¹	.47 ¹	.60 ¹	.35 ¹	.53 ¹
R^2	34%	14%	22%	35%	12%	28%

$p < .001$ $p < .01$ $p < .05$ $p < .1$ (not statistically significant)

Table 1b: Regression coefficients and multiple correlation coefficients for literacy score at 37 on reading skills at 16 and time spent out of paid employment

	MEN			WOMEN		
	all	poor reader at 16	good reader at 16	all	poor reader at 16	good reader at 16
reading score at 16	.48 ¹	.48¹	.25 ¹	.49 ¹	.50¹	.31 ¹
time out of paid employment	-.04	-.14*	.16*	-.03	-.14	.05
R	.49 ¹	.52¹	.34	.50 ¹	.51¹	.32 ¹
R ²	24%	27%	12%	25%	26%	10%

p<.001¹ p<.01² p<.05³ p<.1 (not statistically significant)

A p-value of p<.001 indicates the observed relationship would occur by chance in less than 1% of cases.

*the relationship is significant in the opposite direction to that expected.

Table 2a: Influence of maths skills at 16 and time spent out of paid employment on numeracy at 37: controlling for demographic and post-16 experiences

	MEN			WOMEN		
	all	poor maths at 16	good maths at 16	all	poor maths at 16	good maths at 16
maths score at 16	.48 ¹	.22 ⁴	.33 ¹	.51 ¹	.30 ¹	.44 ¹
time out of paid employment	-.11 ²	-.15	-.09 ⁴	-.06	-.18 ¹	-.02
social class at birth	-.02	.16	-.05*	.08 ²	.17 ⁴	.07 ⁴
age left full-time education	.24	.05	.29 ¹	.07	.03	.06
number of children at 37	.02	.05	.02	.03	.05	.02
work related training 16-23	.03	.11	.02	.05	.18 ¹	.03
work related training 23-33	.03	.15	.02	.12 ¹	.11	.14 ²
R	.62¹	.47¹	.50¹	.62¹	.46¹	.55¹
R ²	38%	22%	25%	38%	21%	30%

p<.001¹ p<.01² p<.05³ p<.1 (not statistically significant)

*the relationship is in the wrong direction.

Table 2b: Influence of reading skills at 16 and time spent out of paid employment on literacy at 37: controlling for demographic and post-16 experiences

	MEN			WOMEN		
	all	poor reader at 16	good reader at 16	all	poor reader at 16	good reader at 16
reading score at 16	.34 ¹	.36 ¹	.15 ²	.38 ¹	.41 ¹	.21 ¹
time out of paid employment	-.05	-.13	.02	.03	-.10	.07
social class at birth	.04	.10	.01	.04	.14 ⁴	.02
age left full-time education	.24 ¹	.07	.28 ¹	.13 ²	.30 ²	.14 ²
number of children at 37	.04	.09	.02	-.04	-.07	-.04
work related training 16-23	.09 ¹	.15	.08	.05	.01	.04
work related training 23-33	.01	.04	.03	.07 ⁴	.04	.10 ¹
R	.53¹	.52¹	.42¹	.51¹	.62¹	.36¹
R²	28%	27%	17%	26%	39%	13%

p<.001 ¹p<.01 ²p<.05 ³p<.1 (not statistically significant)

For further information contact:

The Basic Skills Agency
Commonwealth House,
1-19 New Oxford Street
London WC1A 1NU

Tel: 0171 405 4017 • Fax 0171 440 6626

email: enquiries@basic-skills.co.uk

www.basic-skills.co.uk

ISBN 1 85990 085 2

BEST COPY AVAILABLE

